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TASK ORDER NO. 0001
TOTAL ENVIRONMENTAL RESTORATION CONTRACT

REGULATORY COMPLIANCE PLAN
NEW BEDFORD HARBOR
SUPERFUND SITE
New Bedford, Massachusetts

May 2007

Prepared for:

U.S. Army Corps of Engineers
New England District
Concord, Massachusetts

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3	4/15/07	A. Rigassio Smith/K. Morris	Entire Document

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ACRONYMS AND ABBREVIATIONS

AAL	Ambient Air Level
ARAR	Applicable or Relevant and Appropriate Requirement
AWQC	Ambient Water Quality Criteria
BACT	Best Available Control Technology
CDF	confined disposal facility
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CIH	Certified Industrial Hygienist
City	City of New Bedford
CMR	Code of Massachusetts Regulations
DMU	dredge management unit
DOT	U.S. Department of Transportation
EPA	U.S. Environmental Protection Agency
ESD	Explanation of Significant Differences
FEMA	Federal Emergency Management Agency
FWENC	Foster Wheeler Environmental Corporation
FY	Fiscal Year
Jacobs	Jacobs Engineering Group
MassDEP	Massachusetts Department of Environmental Protection
MCZM	Massachusetts Coastal Zone Management
MEPA	Massachusetts Environmental Policy Act
NAE	U.S. Army Corps of Engineers – New England District
NBH	New Bedford Harbor

ACRONYMS AND ABBREVIATIONS

NCP	National Contingency Plan
NEPA	National Environmental Policy Act
NESHAPS	National Emissions Standards for Hazardous Air Pollutants
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRC	National Response Center
OU#1	Operable Unit #1
PCB	polychlorinated biphenyl
ppm	parts per million
RCP	Regulatory Compliance Plan
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
RQ	Reportable Quantity
Site	New Bedford Harbor Superfund Site
T&D	transportation and disposal
TEL	Threshold Effect Level
TERC	Total Environmental Restoration Contract
TMDL	Total Maximum Daily Load
TSCA	Toxic Substances Control Act
TSS	total suspended solids
TTSP	Transportation and Temporary Storage Plan
USCG	United States Coast Guard
WPA	Massachusetts Wetlands Protection Act
µg/L	micrograms per liter
$\mu g/m^3$	micrograms per cubic meter

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1.0 PROJECT ORGANIZATION AND RESPONSIBILITIES

1.1 PURPOSE

The purpose of this *Regulatory Compliance Plan* (RCP) is to identify the applicable environmental regulatory requirements associated with the remedial activities at Operable Unit #1 (OU#1) of the New Bedford Harbor Superfund Site (Site). This RCP supersedes the previous version issued by Jacobs (Jacobs 2005e). It has been written to include knowledge gained from multiple years of dredging at the Site and is not specific to any one year. Environmental regulatory requirements associated with prior remedial activities were detailed in the final *Regulatory Compliance Plan for Remedial Design, Operable Unit #1, New Bedford Harbor Superfund Site, October 2000*; and as Amended August 2001 for the *Full-Scale Dredging/Excavation/Restoration Program Design and the Dewatering & Rail Facility Designs* (FWENC 2000, 2001). The primary focus of this RCP is to identify and explain the environmental regulations that potentially apply to the dredging, sediment processing, and wastewater treatment components of the remedial effort. More specifically, it discusses regulatory requirements at the major operational components associated with these remedial actions—particularly the dredging work zones, the Area C desanding facilities, and the Area D dewatering facilities and wastewater treatment plant. The Jacobs Project Manager, supported by the Jacobs Site Manager, is responsible to verify that all project personnel are aware of the requirements outlined in this RCP.

Section 2.0 summarizes the regulatory considerations that are the basis for remedial actions to be performed at the Site. Section 3.0 identifies applicable regulatory requirements, including those requirements presented in the Record of Decision (ROD), associated with the various activities to be performed during remedial activities at OU#1. Section 4.0 discusses notification requirements and best practices to be followed for releases that occur during remedial activities at the Site. Training requirements and inspection activities are discussed in Section 5.0 and Section 6.0 respectively. Section 7.0 briefly addresses documentation of regulatory compliance procedures. The RCP will

be updated when there are any changes to the scope of work or the regulatory programs under which activities are conducted.

This version of the RCP incorporates the information previously contained in the *Environmental Protection Plan* (EPP) prepared for this site (Jacobs 2005d). The elements of the EPP captured in this document will be updated with future versions of the RCP.

1.2 SITE DESCRIPTION AND PROJECT BACKGROUND

The New Bedford Harbor Superfund Site is located in the City of New Bedford (City) in Bristol County, Massachusetts. The Site extends from the shallow northern portions of the Acushnet River estuary south through the commercial port of New Bedford Harbor (NBH) and adjacent areas of Buzzards Bay. The harbor sediments are contaminated with high levels of polychlorinated biphenyls (PCBs) and heavy metals from the industrial and urban development along the harbor, with concentration gradients generally decreasing from north to south. Identification of PCB-contaminated sediments and seafood in and around New Bedford Harbor was first made in the mid-1970s as a result of U.S. Environmental Protection Agency (EPA) region-wide sampling programs. Based on these sampling programs, the determination was made that the principle sources of PCB contamination were from two electric capacitor manufacturing facilities located adjacent to the Acushnet River/New Bedford Harbor water way. The primary source of PCB contamination emanated from the Aerovox facility, located near the northern boundary of the Site. PCB wastes were discharged from Aerovox's operations directly into the Upper Harbor through open trenches and discharge pipes, or indirectly throughout the Site via the City's sewage system. Secondary inputs of PCBs were also made from the Cornell Dubilier Electronics, Inc. facility just south of the New Bedford Hurricane Barrier. These electric capacitor manufacturing facilities operated from the 1940s into the 1970s. The NBH Site was added to the Superfund National Priorities List (NPL) in September 1983.

The NBH Site has been divided into three areas—the Upper Harbor, the Lower Harbor, and the Outer Harbor—consistent with geographical features of the area and gradients of contamination. A site plan showing these three areas, as well as the approximate locations of the treatment systems is included as Figure 1-1. The boundary between the Upper Harbor and the Lower Harbor is the Coggeshall Street Bridge where the width of New Bedford Harbor narrows to approximately 100 feet. The boundary between the Lower Harbor and the Outer Harbor is the 150-foot wide opening of the New Bedford Hurricane Barrier. The operable unit designation for the Upper and Lower Harbors, and a small portion of the Outer Harbor, is OU#1, as defined by the cleanup goals in the Record of Decision for the Site. Operable Unit #1 primarily covers the remediation of the Upper Harbor and Lower Harbor and a small area in the Outer Harbor as defined by cleanup goals in the ROD; all activities described in this RCP are associated with OU#1. The Upper Harbor extends from an area just north of the Wood Street Bridge to the Coggeshall Street Bridge. The Lower Harbor extends from the Coggeshall Street Bridge to the hurricane barrier. The Outer Harbor is the area between the hurricane barrier and an imaginary line drawn from Rock Point southwesterly to Negro Ledge and then southwesterly to Mishaum Point.

The Upper Harbor comprises approximately 187 acres, with current sediment PCB levels ranging from below detection to approximately 4,000 parts per million (ppm); prior to the removal of the most contaminated Hot Spot sediments in 1994 and 1995 as part of the Site's first cleanup phase, sediment PCB levels were reported higher than 100,000 ppm in the Upper Harbor. The Lower Harbor comprises approximately 750 acres; in some of this area, sediment PCB levels range from below detection to over 100 ppm. Sediment PCB levels in the Outer Harbor are generally low, with only localized areas of PCBs in the 50 to 100 ppm range near the Cornell-Dubilier plant and the City's sewage treatment plant's outfall pipes.

1.3 CONTRACTUAL RELATIONSHIP

The EPA and the U.S. Army Corps of Engineers – New England District (NAE) entered into an Inter-Agency Agreement in February 1998 that gives NAE responsibility to provide technical assistance to EPA for the NBH Site. In October 1998, EPA authorized NAE to perform Remedial Design activities associated with the Upper Harbor and Lower Harbor cleanup. This *Regulatory Compliance Plan* has been prepared by Jacobs Engineering Group (Jacobs) under NAE's Total Environmental Restoration Contract (TERC) No. DACW33-03-D-0006.

1.4 SCOPE OF WORK

The remedial alternative selected for the Upper and Lower Harbors of the New Bedford Harbor Superfund Site includes removal of approximately 880,000 cubic yards of PCB-contaminated sediment. The acceptable levels of PCB contamination in the sediment drives the total volume of sediment that must be removed. Those levels are described in the *Superfund Record of Decision for the Upper and Lower Harbor Operable Unit, New Bedford Harbor Superfund Site* (EPA 1998). The amount of impacted sediment removed each year will be determined based on dredge progress and funding. The dredged material undergoes desanding, dewatering, and wastewater treatment to enable proper disposal of all waste streams. Performance sampling will continue to be conducted by the Jacobs team to ensure objectives are being met with respect to waste characterization and effluent standards. Adjustments to unit operations are made as warranted.

Remedial activities at the Site completed by Jacobs have been described in Jacobs' Execution Plans (Jacobs 2004b, 2005g, 2006, 2007).

1.5 KEY PERSONNEL AND CONTACTS

For a project as complex as the New Bedford TERC, successful compliance with regulatory requirements requires close cooperation among the several involved

organizations, including the TERC contractor (Jacobs), government entities (NAE, EPA, and Massachusetts Department of Environmental Protection [MassDEP]), and transportation and disposal (T&D) contractors. This Subsection of the RCP identifies the role and phone number/extension for key personnel involved with remedial activities at the Site. Additional details regarding roles, responsibilities, and other aspects of project organization are presented in Section 2.0 of the Field Sampling Plan (Jacobs 2005b).

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2.0 REGULATORY DRIVERS

2.1 LEAD PROGRAM SUMMARY

The New Bedford Harbor Superfund Site is classified as a NPL site requiring remediation by EPA under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (more commonly called the National Contingency Plan or NCP). An interagency agreement has been signed between EPA and NAE granting regulatory authority to the U.S. Army Corps of Engineers for administration of the selected remedy.

2.2 COMPLIANCE WITH PROJECT DECISION DOCUMENTS

Remediation activities are being conducted in accordance with the following, referenced more fully in Section 8.0. The reader is advised that updated versions of the site planning documents that post-date this revision may be available.

- EPA Superfund Record of Decision for the Upper and Lower Harbor Operable Unit, New Bedford Harbor Superfund Site, dated September 25, 1998 (EPA 1998).
- EPA Explanation of Significant Differences for the Upper and Lower Harbor Operable Unit, New Bedford Harbor Superfund Site, September 2001 (EPA 2001).
- EPA Explanation of Significant Differences for the Upper and Lower Harbor Operable Unit, New Bedford Harbor Superfund Site, August 2002 (EPA 2002).
- NAE TERC No. DACW33-03-D-0006 and subsequent Task Orders (U.S. Army Corps of Engineers).
- Execution Plans—New Bedford Harbor Remedial Action (Jacobs 2004b, 2005g, 2006, 2007).
- Field Sampling Plan—New Bedford Harbor Superfund Site (Jacobs 2005b).
- Transportation and Temporary Storage Plan—New Bedford Harbor Superfund Site (Jacobs 2005f).
- Quality Assurance Project Plan—New Bedford Harbor Superfund Site (Jacobs 2005c).
- Construction Quality Control Plan—New Bedford Harbor Superfund Site (Jacobs 2005a).

All work conducted in areas deemed to be "on-site" will be conducted in accordance with these decision documents and the substantive requirements of the identified Applicable or Relevant and Appropriate Requirements (ARARs). The ARARs are provided in the appendix. Any work in areas deemed to be "off-site" will be conducted in accordance with both administrative and substantive requirements of applicable federal, state, and local regulations.

2.3 REGULATORY BACKGROUND

The 1998 ROD for the Upper and Lower Harbor OU#1 states that under the Toxic Substances Control Act (TSCA), EPA determined that the site meets the standards of 40 Code of Federal Regulations (CFR) 761.50(b)(3)(i)(A) for remediation and that the selected remedy will not pose an unreasonable risk of injury to health or the environment pursuant to 40 CFR 761.61(c), the "risk-based" remediation approach. The 1998 ROD proposed that approximately 450,000 cubic yards of PCB-laden sediment be dredged from the harbor bottom and surrounding wetlands, and be disposed in perpetuity in four shoreline confined disposal facilities (CDFs); the PCB-concentration criteria for sediment removal was to be dependent on the location of the contaminated sediment.

Subsequent to issuance of the 1998 ROD, EPA gathered additional site information and refined the remedial approach for the Upper Harbor and Lower Harbor. An Explanation of Significant Differences (ESD) was issued in September 2001 to address five of these refinements: additional intertidal cleanup areas; mechanical dewatering; use of the pilot study CDF as an interim TSCA facility; change in CDF D wall design; and use of rail at CDF D.

A second ESD for the OU#1 ROD modified the remedy to allow off-site disposal for the dredged sediments slated for CDF D in lieu of constructing CDF D and disposing of PCB-contaminated sediments therein. While the second ESD eliminated the 17-acre CDF D, it provided for its substitution with a smaller shoreline facility to be constructed

in the same area to support both sediment dewatering facilities and loading area operations required for disposal of the dewatered sediments to a licensed off-site facility.

2.4 REGULATORY ASSUMPTIONS

Waste management activities and compliance practices summarized in this RCP are based on the following key assumptions:

1. As per the ROD, EPA has expanded the definition of "on-site," as defined in the NCP, under 40 CFR 300.5, to include for this project the following: the Acushnet River; the existing CDF, floating dock, and desanding operations at the Area C Sawyer Street facilities; dewatering and wastewater treatment operations at Area D; and areas in close proximity to the site contamination, where activities such as dredging, pumping, and pipe conveyance will occur.
2. On-site activities must comply only with the substantive requirements of the federal and state regulations listed as ARARs in the ROD. It shall not be necessary to obtain permits or comply with other administrative requirements for regulations listed as project ARARs. Any off-site activities must comply with both substantive and administrative requirements of all federal, state, and local regulations. Transportation of dredged sediments, oversize debris, and contaminated remediation materials from the dredging locations along the waterway and immediate shoreline to an authorized docking area or via pipeline is considered an "on-site" activity. On-site transportation of sediments via pipeline and other wastes via barges has been described in the *Execution Plan* (Jacobs 2004b). Transporting of dewatered sediment waste between Areas C and D on public roads has occurred during the previous dredging seasons, and is an option for future seasons. Completing waste manifests for this transport is not a regulatory requirement as these areas are considered to be contiguous properties. According to 40 CFR 262.20(f), manifesting requirements do not apply to the transport of hazardous waste on public or private right-of-way within or along the border of contiguous property. However, the transporter may choose to complete manifests as a prudent measure.
3. TSCA-regulated PCB waste and debris may be stored on site. There are no time limit requirements for storage. TSCA material storage time limits are not an ARAR, due to the CERCLA action exemption.
4. Materials with PCB concentrations equal to or greater than 50 ppm require management as TSCA-regulated PCB wastes. Similarly, per 310 Code of Massachusetts Regulations (CMR) 30.131, MassDEP classifies PCB waste as 'Hazardous Waste from Non-specific Sources' if the material contains PCBs in concentrations equal to or greater than 50 ppm (Massachusetts Hazardous Waste Number MA02). All dredged sediments for disposal will be managed as TSCA-regulated PCB waste and MA02, until analytical testing indicates otherwise.

5. Experience with dredging of the Acushnet River has revealed localized areas that contain sediments with VOC concentrations that may exceed the TCLP limits. If sediments are dredged in those areas, or other areas that appear to contain VOCs, the processed sediment may be sampled and analyzed for VOC TCLP. The results could be used for decisions regarding waste disposal.

6. Transport of PCB-contaminated materials to the disposal facility by truck or railcar meets the definition of a U.S. Department of Transportation (DOT) hazardous material because the amount of PCBs in one container equals or exceeds the listed Reportable Quantity (RQ) for PCBs.

7. Off-site waste transportation activities are subject to all applicable administrative and substantive federal and state requirements for hazardous material transportation. In particular, regulated wastes must be transported using a licensed waste transporter possessing all required federal and state waste permits/licenses and manifests must be used for the transport of all RCRA and Massachusetts hazardous wastes, as well as TSCA-regulated PCB wastes.

8. Off-site waste disposal must comply with substantive and administrative requirements of TSCA, RCRA, and Massachusetts hazardous and solid waste regulations.

9. Waste sampling will be performed as described in the companion *Field Sampling Plan* document (Jacobs 2005b).

10. EPA, under Section 121(d)(4)(B) of CERCLA, has granted a waiver of 40 CFR 122.4(i) of the Clean Water Act that will allow the discharge to New Bedford Harbor of treated dewatering filtrate that fails to meet the Ambient Water Quality Criteria (AWQC) for PCBs and copper. The CERCLA waiver was granted because mandatory compliance with the AWQC would prevent the sediment dredging and the cleanup of the site. The goal with respect to these two parameters is that treated effluent will meet the AWQC for copper and PCBs through a phased Total Maximum Daily Load (TMDL) approach.

11. Since the entire site is located in a coastal zone management area, the federal Coastal Zone Management Act requires the selected remedy be consistent with the Massachusetts Coastal Zone Management Program. As stated in the Declaration of the Record of Decision, it is not necessary to formally submit a federal consistency determination since this determination is procedural rather than substantive and the various site investigations, feasibility studies, and proposed plan fulfill the substantive requirements of a consistency determination.

12. The National Environmental Policy Act (NEPA) and the Massachusetts Environmental Policy Act (MEPA) are not listed as ARARs in the ROD for the selected remedy. Since the site remedial investigations and the evaluation of remedial alternatives identify and evaluate the environmental impacts of the suggested remedies, the CERCLA process is functionally equivalent to NEPA/MEPA.

13. The construction of the desanding structure and modifications to the dewatering building did not require any permits because the facilities will be within the areas defined as "on-site." The following activities were conducted by Foster Wheeler

Environmental Corporation (FWENC) (1) coordinated proposed site improvements at Areas C and D with appropriate City officials to ensure compatibility with City of New Bedford requirements to the extent practicable; (2) followed state and City of New Bedford requirements, construction codes, and construction specifications in their construction of the Area D dewatering building and other Site improvements to ensure compliance with Massachusetts and City requirements, and (3) coordinated construction activities with appropriate local officials including the New Bedford City Building Inspector, Department of Public Works, and utility company officials as appropriate.

14. NAE will continue to consult with the appropriate federal and Massachusetts fish and wildlife agencies for all project activities that involve potential impacts to fish and wildlife.

15. NAE will continue to consult with the appropriate local Conservation Commissions; however, administratively a "Notice of Intent" and a formal Public Hearing will not be required for dredging activities.

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3.0 REGULATORY COMPLIANCE REQUIREMENTS

This Section addresses the regulatory compliance issues and requirements associated with the performance of remedial actions at the Site.

3.1 SITE MOBILIZATION AND PREPARATORY WORK

Prior to mobilization of any new site trailer, or temporary structures and associated utility connections (water, sanitary sewer, electrical), the Jacobs team will coordinate with appropriate City officials, including submitting a plan showing locations of the structures to the City of New Bedford Zoning Officer. Any coordination with City officials will be by the Project Manager or his designee. Administrative requirements, such as building permits and permit fees, will not be required because the Site is operating under CERCLA and, as such, the site is only required to meet substantive requirements.

Commonwealth of Massachusetts licensed electricians will be used for all electrical connections to ensure compliance with state and local building code requirements. If new sanitary sewer or water connections are necessary, they will be protected from vehicular traffic and will meet City of New Bedford specifications.

Normal building and construction operation hours will be limited to 6:00 am to 10:00 pm on weekdays. If construction work is anticipated outside of these hours, the Jacobs team will coordinate with City officials.

3.2 DREDGING

3.2.1 Fish and Wildlife, Endangered Species, and Cultural and Historical Resources

Dredging activities must consider the potential impacts to fish, wildlife, and endangered species, as well as to areas where historical (e.g., sunken ships) and Native American artifacts may be located.

Under the Fish and Wildlife Coordination Act [16 USC Part 661 et seq.; 40 CFR 6.302(g)], the Fish and Wildlife service and appropriate state agencies must be consulted during project planning to determine ways to avoid or minimize potentially adverse effects to fish and wildlife. EPA Region 1 has consulted with the Massachusetts Division of Marine Fisheries and has stated that activities may occur throughout the year and that there is no constraint due to fish migration.

The federal Endangered Species Act [16 USC Part 1531 et seq.; 40 CFR 6.302(h)] requires consultation with appropriate federal and state agencies if a threatened or endangered listed species or their habitat may be affected by a federal action. As per the ROD, EPA will continue to coordinate with the State Ornithologist to evaluate/accommodate mitigation measures for dredging activities affecting the identified feeding grounds of the Roseate Tern.

With respect to cultural and historical resources, an assessment has been performed by NAE to determine potential project impacts to cultural resources which were eligible for, nominated to, or listed on the National Register of Historic Places in accordance with the requirements in the National Historic Preservation Act of 1966 (as amended) and the National Preservation of Historical and Archeological Data Act of 1974. In addition, NAE has notified the State Historic Preservation Officer of the location of dredging activities.

3.2.2 Clean Water Act—Section 404 and Rivers and Harbors Act Requirements

All dredging activities must comply with the substantive requirements of Section 404 of the federal Clean Water Act and associated regulations (dredging and filling within waters of the United States). At a minimum, the impact of dredging activities on the environment will be avoided, minimized, and/or mitigated by employing the following practices (40 CFR 230.70-76):

- Varying the cleanup standards for the sediments so as to minimize dredging of the sediments. Per the ROD, a higher cleanup standard was set for sediments in the

Lower Harbor and salt marshes (50 ppm PCBs), resulting in reduced excavation in wetlands, compared to the cleanup standard of 25 ppm for the intertidal areas prone to beachcombing, 10 ppm in the Upper Harbor, and 1 ppm for intertidal areas adjacent to residential properties;

- Using hydraulic dredging equipment and dredging rates and procedures that minimize sediment disturbance and migration;
- Using booms with skirt and other water column siltation controls during dredging if advised by the government to confine suspended particulates and minimize increases in turbidity;
- Orienting the dredging platforms to minimize undesirable obstruction to the water current or circulation pattern in New Bedford Harbor;
- Desanding and dewatering dredged sediments to reduce their liquid fraction; and
- In the event that dredging of filled/disturbed salt marsh areas occurs, replacement of same on a 1:1 ratio based on equivalent wetlands functions and values (see Subsection 3.2.12).
- Although permits are not required for project activities, the activities will meet the substantive requirements under the Section 404 permitting program.
- The Rivers and Harbors Act requires the coordination and approval of the U.S. Army Corps of Engineers for dredging in navigable waters of the United States. All dredging activities at the site will be coordinated with and carried out with the participation and approval of the NAE. The Jacobs team will issue notification to the New Bedford Harbormaster prior to the start-up of dredging activities and a "Notice to Mariners" will be issued. Discharge piping in areas subject to navigation are marked in a manner such that it is visible to harbor vessel operators (i.e., use of buoys and lights).

3.2.3 Clean Water Act—Section 401 and Massachusetts 304 CMR 9.00 Requirements

The discharge of dredge or fill material into waters of the US must be authorized pursuant to Section 401 of the federal Clean Water Act (Water Quality Certificates). In Massachusetts, Section 401 Water Quality Certifications are administered by the MassDEP [314 CMR 9.06(1) and (2)]. These regulations state that the discharge of dredged or fill material is not permitted if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences. Also, discharge of dredged or fill material is not permitted unless appropriate and practicable

steps have been taken that will minimize potential adverse impacts to the bordering or isolated vegetated wetlands or land under water, including a minimum of 1:1 restoration or replication of bordering or isolated vegetated wetlands. These regulations further state that minimization and mitigation of adverse impacts shall be required for the selected alternative and the ability to minimize and mitigate impacts may be a factor in the evaluation of alternatives.

As described in the ROD, the selected remedy (dredging of contaminated harbor sediments) represents the best practicable alternative for remediation of harbor contamination. Any adverse impacts resulting from dredging activities will be minimized by implementing engineering controls, such as using a hydraulic dredge with environmental shroud in lieu of a mechanical dredge, adjusting the dredging rate, and employing various water column siltation controls as needed.

3.2.4 Erosion and Sedimentation Control Plan

Dredging activities, including processing of dredged sediments will be conducted in a manner that minimizes recontamination of dredged areas and contamination of clean sediments to the extent possible. This may (to be determined by the Government based on field observations) include using water column siltation controls.

3.2.5 Stormwater Management Plan

The Jacobs team will comply with federal and state stormwater management regulations, including, but not limited to, National Pollutant Discharge Elimination System program requirements. Best Management Practices such as hay bales, silt fence, check dams, and diversion berms will be used as needed to reduce site erosion.

3.2.6 Surface Water and Groundwater Protection

The CDF at Area C was designed to prevent direct discharge of contaminated run-off from the facility to any surface water bodies or to groundwater. Per 310 CMR 19.118, a

monitoring system was installed during the construction of the CDF to monitor for release of contaminants in nearby groundwater and surface water.

The surface water aspect of the monitoring system consists of permanent surface water sampling location markers that were installed by FWENC upstream and downstream of the CDF.

Analysis of surface water and groundwater will continue to be conducted and performed in accordance with the following methods approved by EPA; sampling points as agreed to by EPA; a schedule as agreed to by EPA; and will occur semi-annually, at a minimum (however the EPA may require more frequent or additional monitoring in cases where data are determined to be unacceptable). All analytical results will be submitted to the EPA within 60 days after the scheduled sampling period. Static groundwater elevation and total well depth must be recorded prior to collecting a groundwater sample whenever a monitoring well is to be sampled. Monitoring of groundwater and surface water will continue to be performed by NAE or its designee.

3.2.7 Air Monitoring and Fugitive Emissions Control

Air monitoring and air pollution/fugitive emissions requirements and controls associated with dredging are presented at Subsection 3.8.

3.2.8 Wetlands Protection Requirements

Dredging activities have the potential to impact areas protected under the Massachusetts Wetlands Protection Acts (WPA) (310 CMR 10.00). EPA has consulted with the Massachusetts Division of Marine fisheries for dredging activities affecting fish and shellfish habitats. If the dredging program cannot meet the performance standards listed below, mitigation methods (or a variance of the performance standard) will need to be employed. Performance standards and mitigation methods are listed in Table 3-1.

Table 3-1 Wetlands Performance Standards and Mitigation Methods

Performance Standard	Mitigation Method
Projects shall not alter the bottom topography in a manner that increases the potential for storm damage or erosion of nearshore areas. Project activities should attempt to avoid areas with eelgrass or widgeon grass and high densities of polychaetes, mollusks, or macrophytic algae (310 CMR 10.25).	EPA will review the proposed dredging program to evaluate the potential for erosion and storm damage. The Jacobs team will design a protective measure if areas will be impacted.
If the dredging activity is located in a designated port area, which is determined to be significant to marine fisheries, then water quality and water circulation interests should be protected (310 CMR 10.26).	The dredge areas are above the Coggeshall Street Bridge and are not considered within a designated port area.
Water-dependent projects on tidal flats should be designed and constructed to minimize adverse effects to marine fisheries and wildlife habitat caused by alterations in water circulation, distribution of sediment grain size or changes in water quality (310 CMR 10.27).	Any dredging activities on tidal flats will be performed to minimize adverse effects to marine fisheries and wildlife habitat caused by alterations in water circulation, distribution of sediment grain size or changes in water quality.
Massachusetts water quality standards must be met for dredging operations (310 CMR 10.27).	The Jacobs team will treat all sediment dewatering filtrate prior to discharge. The treated filtrate will meet the current numerical AWQCs for cadmium, chromium, and lead. With respect to Site standards for discharge of PCBs and copper, the goal is that the AWQC for these two parameters will ultimately be met through a phased TMDL approach.
Dredging should not destroy any portion or have an adverse effect on a salt marsh (310 CMR 10.32).	If salt marshes are disturbed during the performance of remedial activities at the Site, the disturbed salt marshes will be replaced on a 1:1 ratio (see Subsection 3.2.12).
If the dredging area underlies an anadromous or catadromous fish run, the project should not impede or obstruct the migration of fish, change the volume or rate or flow of water within the fish run, or impair the capacity of the spawning or nursery habitat.	EPA has consulted with the MassDEP Division of Marine Fisheries and other appropriate entities regarding timing of work activities and there will be no restrictions placed on when the work can be accomplished.

3.2.9 Waterways Regulations

The Massachusetts Chapter 91 Waterways Licenses Law (91 MGL 1.00 et seq.) and MassDEP regulations (310 CMR 9.40) focus on the long-term viability of marine industrial uses within a Designated Port Area, maintaining or improving public access, and protecting public rights in tidelands. Public rights include fishing, fowling, and navigation in Commonwealth tidelands. A Chapter 91 Waterways License is considered an administrative requirement (i.e., permit) and is not required for this CERCLA project.

The dredging activities should comply with the performance standards listed in Table 3-2 below. If the performance standards cannot be met, then mitigation methods must be considered. Mitigation measures may include engineering controls (e.g., modification to dredge types and dredging operations) to minimize adverse effects. Mitigation methods are also presented in Table 3-2.

Table 3-2 Waterways Performance Standards and Mitigation Methods

Performance Standard	Mitigation Method
Navigational impacts from dredging must be minimized.	To date there have been minimal navigational impacts from dredging activities. All feasible measures will be taken to mitigate any navigational impacts associated with dredging.
Design and timing of dredging and dredge material disposal should avoid interference with anadromous and catadromous fish runs; no activity between March 15th and June 15th without approval from Division of Marine Fisheries (310 CMR 9.40(2)).	EPA has consulted with the MassDEP Division of Marine Fisheries and other appropriate entities regarding timing of work activities and there will be no restrictions placed on when the work can be accomplished.
Design and timing of dredging and dredged disposal should minimize adverse effects on shellfish beds, fisheries resources and submerged aquatic vegetation (310 CMR 9.40(2)).	EPA has consulted with the MassDEP Division of Marine Fisheries and other appropriate entities regarding timing of work activities and there will be no restrictions placed on when the work can be accomplished.
The shoreward extent of dredging shall be a sufficient distance from the edge of adjacent marshes to avoid slumping. In general, for improvement dredging projects the edge of the dredging footprint, including any side cuts, should be at least 25 feet from any marsh boundary (310 CMR 9.40(3)).	The NBH Superfund project is not a navigational dredging project. To meet cleanup goals, dredging will occur up to the edge of vegetated (marsh) areas. In areas where appropriate design calculations indicate that dredging may result in instability to the shoreline, stabilization measures such as backfilling with clean granular or native material, or slope protection will be employed.

3.2.10 Water Quality Certification

Water Quality Certification Standards are satisfied through the remedy meeting the substantive requirements of Section 402 of the Clean Water Act and the Massachusetts Wetlands Regulations. Discharges of treated sediment dewatering filtrate must meet discharge limits applicable to either a discharge to the harbor or to a publicly owned treatment works pursuant to the ROD. Applicable discharge goals are presented at Subsection 3.6.1.

3.2.11 Massachusetts Coastal Zone Management Program

The Massachusetts Coastal Zone Management (MCZM) Program is a federally funded and approved state Coastal Zone Management Program under the federal Coastal Zone Management Act of 1972. The MZCM has established policies that are based upon existing Massachusetts Water Quality, Wetlands, and Waterways regulations. The ARARs from these regulations have already been identified elsewhere in this RCP (see Subsections 3.2.8—Wetlands Protection Requirements and 3.2.9—Waterways Regulations).

3.2.12 Restoration/Replication

It is not anticipated that trees, shrubs, or vegetation will be removed, damaged, or impacted by the dredging, treatment and disposal operations. If an activity requires removal of trees or shrubs or any parts thereof, NAE will be notified prior to such removal or trimming. Inadvertent damage to trees or shrubs will be brought to the attention of NAE and, if so directed by NAE, replaced or repaired.

In the event that salt marshes are disturbed or adversely affected, then as part of federal, state, and local performance standards and requirements for the performance of dredging activities, a restoration/replication design will be implemented to ensure the protection of jurisdictional wetland resources. The restoration plan will be designed to the greatest extent practicable to minimize adverse impacts to identified resources, and comply with the substantive requirements of federal, state, and local regulations. A summary is provided below, to elaborate on specific performance standards, requirements, and methods of compliance associated with restoration activities.

Federal Clean Water Act (Section 404): A restoration plan will be developed as the mitigation measure required within 40 CFR 230.75, for the in-kind replacement and restoration of any salt marsh that is disturbed during dredging associated with clean-up activities. The restoration plan will be designed in accordance with the Memorandum of Agreement between the EPA and the Department of the Army concerning the

determination of mitigation under the Clean Water Act Section 404(b)(1) guidelines. The memorandum states that the objective of mitigation should provide, at a minimum, one for one (1:1) functional replacement (i.e., no net loss of values), with an adequate margin of safety to reflect the expected degree of success associated with the mitigation plan. To comply with the guidelines a wetland function and values assessment will be performed utilizing the U. S. Army Corps of Engineers Highway Methodology descriptive approach. The mitigation plan will be designed to restore or replace disturbed salt marsh areas on a 1:1 ratio for wetland functions and values. However, in accordance with the Section 404(b)(1) guidelines, if the functions and values identified within the area being impacted are demonstrably low and the likelihood of success associated with the mitigation proposal is high, the ratio may be less than 1:1.

Massachusetts Wetlands Protection Act Regulations: The Massachusetts Wetlands Protection Act (310 CMR 10.000) regulations prohibit the destruction of any portion of a salt marsh from fill and dredging activities, and therefore do not include any performance standards or policy guidelines specifically applicable to the restoration and replication of salt marsh. To satisfy the intent of the Wetlands Protection Act, disturbed salt marsh will be replicated or restored at a proposed 1:1 ratio for wetland functions and values. However, in accordance with the Section 404(b)(1) guidelines, if the functions and values identified within the area being impacted are demonstrably low and the likelihood of success associated with the mitigation proposal is high, the ratio may be less than 1:1. An erosion and sedimentation control plan will be implemented to accommodate any potential soil erosion during the re-vegetation process, and a 10-year monitoring plan will be established for replicated salt marsh areas. Furthermore, the Jacobs team and NAE will consult with MassDEP to incorporate, to the greatest extent practicable, substantive requirements of the Department regulations and the respective Conservation Commissions pursuant to local bylaws.

Local Bylaws: Massachusetts town/city Conservation Commissions were granted the authority to administer the WPA (310 CMR 10.04) and adopt additional local

bylaws/regulations for its implementation. The restoration activities will occur within the City of New Bedford and the Towns of Acushnet and Fairhaven, Massachusetts. The New Bedford and Acushnet Conservation Commissions, as of date, do not have additional wetlands protection bylaws and, therefore, solely enforce the rules and regulations of the WPA. However, the Fairhaven Conservation Commission has adopted its own bylaw that employs supplemental wetland protection regulations in addition to the WPA. To ensure substantive requirements are met for work proposed within the jurisdiction of the WPA and the Fairhaven Wetlands Protection Bylaw, the Conservation Commission will be consulted in the event that restoration replication is required in Fairhaven.

3.2.13 Noise Control Regulations

If necessary, engineering controls will be used during dredging operations to minimize noise emissions so that the activities do not cause or contribute to unnecessary emissions that may cause noise (310 CMR 7.10(1) and (2)). Such engineering controls may include modifying the equipment by having enclosures to reduce sound or having the equipment operated in a manner that minimizes sound. Use of supplemental or replacement mufflers or other sound-suppression devices on equipment must meet the manufacturer's specifications for the original device. Massachusetts Department of Air Quality Control Policy 90-001, which is a guideline for allowable sound emissions, restricts new sources of noise to no more than 10 decibels above background at the property line. This standard will be followed to the extent practicable.

Work until 7:30 pm may occur during the dredge season. Local ordinances will be complied with, as appropriate, regarding work conducted at night near residential areas. Local zoning authorities will be consulted to determine the location of residentially zoned areas. For example, for night work in Fairhaven, work conducted in the harbor would be under the jurisdiction of the Harbormaster, while work conducted on land is under the jurisdiction of the Police Department (for noise restrictions in residential areas). Thus, the Fairhaven Harbormaster and Police Department would be consulted to determine

noise restrictions near residential areas. Similarly, the respective contacts would be made for work in Acushnet and New Bedford.

3.3 CONFINED DISPOSAL FACILITY OPERATIONS

The ROD proposed construction of four solid waste CDFs for permanent storage of contaminated sediments. Subsequent to the construction of the first of these four CDFs, the second ESD issued relative to the ROD for OU#1 provided for off-site disposal of contaminated sediments in lieu of permanent storage in CDFs. This first CDF is located at Area C within 100 feet of the coastal wetlands. The CDF was designed to meet the NPDES stormwater discharge requirements for industrial activities [40 CFR 122.26(b)(14)(v)]. NAE has also indicated their intent to comply with the Massachusetts Stormwater Management Policy. Water Quality Certification Standards are satisfied by meeting the substantive requirements of Section 402 of the Clean Water Act and the Massachusetts wetlands regulations (310 CMR 10.000). Closure of the CDF as a landfill is not addressed in this RCP, as it is outside the current scope of work.

CDF operation and maintenance will comply with the following substantive, relevant, and appropriate solid waste landfill requirements, per 310 CMR 19.130, as appropriate for CDF final use.

The CDF will be operated with attention to appropriate conditions, such as proper sequencing of CDF operations, proper maintenance of drainage systems, and maintenance of adequate amounts and appropriate types of cover materials, to prevent pollution of groundwater and surface water and deterioration of air quality. The CDF will be operated such that vectors, dust, odors, and other nuisance conditions are minimized.

The Jacobs team will maintain existing CDF stormwater drainage controls and improvements that promote drainage off of the CDF and minimize run-on onto the CDF. Stormwater drainage structures will be maintained so as to ensure integrity of the drainage structures and prevent erosion of the CDF. Soil erosion control measures will

be instituted as necessary to ensure the retention and integrity of the liner. The CDF will be operated such that no solid wastes or leachate are carried off-site due to erosion, and to control siltation due to erosion. If unanticipated or uncontrolled settlement or erosion of the CDF or cover material occurs during operations at Area C or removal of materials from Cell 1, corrective actions will be instituted immediately.

In the past, air monitoring was performed in conjunction with CDF construction at Area C to develop CDF area baseline conditions. No future air monitoring specific only to the CDF is planned. Comprehensive air monitoring to assess the impact of multiple activities will be performed instead, as described in Subsection 3.8. Covers on stockpiles will be used to control fugitive dust emissions if these sediments need to be exposed during material handling.

3.4 DESANDING FACILITY OPERATIONS

The desanding facilities are located at Area C. The desanding equipment consists of vibrating screens, hydrocyclones, and a V-Bottom desanding tank. The primary objectives of the desanding facilities at Area C are to remove large components such as debris, stones, shellfish, large wood chips, gravel, and sand from the dredged slurry prior to further processing (i.e., dewatering) of the sediment at Area D. Several of the following subsections address the regulatory requirements associated with operation of the desanding facilities. Handling and management of the sand and other coarse materials removed from the sediment slurry at Area C is described in Subsection 3.7. Regulatory requirements associated with air emissions generated during desanding facilities operations are described in Subsection 3.8; policies concerning noise control are also discussed in Subsection 3.8. Regulatory requirements associated with off-site transportation and disposal of materials generated from desanding facilities operations are described in Subsection 3.10.

3.5 DEWATERING FACILITY OPERATIONS

The dewatering facilities are located at Area D. The dewatering equipment consists of transfer pumps, agitated mix tanks (feed tanks), polymer injection systems, fast feed pumps, and recessed chamber filter presses. The primary objectives of the regulatory requirements associated with operation of the dewatering facilities are addressed in the following subsections. Regulatory requirements associated with filtrate generated from dewatering facilities operations are described in Subsection 3.6.

3.6 WASTEWATER TREATMENT PLANT OPERATIONS

Dredged sediments are pumped to Area C for desanding, and then to Area D for dewatering. Sediment dewatering generates filtrate from the filter presses that is contaminated with PCBs, copper, lead, chromium, and cadmium that must be treated to meet federal and Commonwealth of Massachusetts AWQCs, except as waived by EPA, prior to discharge to New Bedford Harbor. Since the treatment facilities are considered to be "on-site," permits are not required to construct and operate the facilities or to discharge the treated effluent. The Jacobs team will comply with the substantive Massachusetts requirements for treatment plant operations, including not allowing waste to bypass the system and performing proper maintenance.

3.6.1 Discharge Standards

New Bedford Harbor is classified as an SB coastal water. Discharges to New Bedford Harbor are required to meet relevant and appropriate federal AWQC Criteria and Commonwealth of Massachusetts ambient water quality standards for SB waters. The EPA Regional Administrator, under section 121(d)(4)(B) of CERCLA, has waived the requirements of 40 CFR 122.4(i) of the Clean Water Act NPDES regulations. This waiver allows for the discharge of treated wastewater from processing of sediments into a water body even if the discharge does not meet the AWQCs for PCBs and copper. As per the ROD, it is anticipated that the treated filtrate will meet existing AWQCs for cadmium, chromium and lead. With respect to PCBs and copper, the goal is that the

0.03 micrograms per liter (µg/L) AWQC for PCBs and the 2.9 µg/L AWQC for copper will ultimately be met through a phased TMDL approach.

The water discharged from the treatment unit must be treated to approach as closely as possible the standards listed in Table 3-3.

Table 3-3 Wastewater Treatment Discharge Standards

Contaminant	Standard	Unit	Regulation
PCBs	0.065	µg/L	phased TMDL limit
Cadmium	9.3	µg/L	AWQC
Chromium	50	µg/L	AWQC
Copper	5.6	µg/L	phased TMDL limit
Lead	8.5	µg/L	AWQC

The treatment system operating data collected from multiple years of plant operation show that these limits are being met.

3.6.2 Discharge Monitoring Plan

The Jacobs team has developed a Site discharge monitoring plan in accordance with Massachusetts requirements for discharges to surface waters (314 CMR 3.00-4.00). Samples will be collected at various locations in the wastewater treatment train to evaluate the effectiveness of treatment and to determine whether the treated water is acceptable for discharge to New Bedford Harbor [see the *Field Sampling Plan* (Jacobs 2005b)].

Monthly discharge monitoring reports will be compiled and submitted to the EPA Project Managers and the MassDEP Project Manager. Any monthly average exceedance of discharge standards must be immediately reported internally by the Jacobs Site Manager

to the Jacobs Project Manager and the Jacobs Project Engineer. It will be the responsibility of the Jacobs Project Manager to immediately notify the NAE Project Manager and Project Engineer. The NAE Project Engineer will notify the EPA and MassDEP Project Managers.

3.6.3 Wastewater Treatment Plant Operation and Maintenance

Although not regulated as "treatment works," the Area D wastewater treatment plant will be operated and maintained to meet substantive relevant, and appropriate requirements of Massachusetts regulations for Operation and Maintenance of Wastewater Treatment Works (314 CMR 12.03, 12.04, 12.06, 12.08, and 12.10). The treatment plant design does not allow waste to bypass the system or untreated filtrate to be discharged. The plant is equipped with adequate tools, spare parts, equipment, and personnel to ensure safe and proper operation. The Jacobs team will immediately halt discharging activities if the wastewater treatment plant experiences a malfunction or otherwise fails to operate properly. Discharging will not resume until corrective action is implemented. The wastewater treatment plant will be operated by personnel with qualifications as described at Subsection 5.3.

3.6.4 Wastewater Treatment Plant Air Emissions

There are air emissions from the agitated mix tanks in the dewatering building. These emissions are captured from each tank, passed through an activated carbon bed, and then vented within the dewatering building. At the time of this writing, plans are to extend the air emission stack outside of the building so that the post-carbon emissions will be discharged away from the work areas to the ambient air. Emissions will be monitored by a regular sampling program, the details of which will be presented in a future amendment to the *Field Sampling Plan*. Air discharge permits are not required for this emission source under the permitting exemption in CERCLA. Additionally, the plant is not anticipated to emit more than one ton per year of any criteria air contaminants.

3.7 SOLID AND LIQUID COLLECTION, CONTAINMENT, AND TRANSPORTATION

The sediment desanding and dewatering operations generate several waste streams, including the following materials generated by the dewatering/size separation processes:

1. Debris removed ahead of dredging operations using a hydraulic excavator mounted on a barge;
2. Coarse phase materials (rocks, crustaceans, shellfish, pulverized roots and brush, etc.) separated from the dredge slurry by means of a vibrating screen at Area C and sand separated from the dredge slurry by means of hydrocyclones and 200 mesh screens at Area C (screened material from desanding operations);
3. Dewatered filter cake from filter presses at Area D; and
4. Filtrate from dewatering operations at Area D.

The debris waste stream is rinsed in the sea water at the barge to remove as much sediment as practicable prior to temporary storage at Area C. This material is sampled prior to disposal to determine appropriate characterization. If waste characterization does not indicate that these materials must be handled as TSCA, RCRA, or Massachusetts hazardous waste (MA02), this material will be managed as a solid waste and disposed of in a permitted solid waste or construction and demolition landfill.

The screened material at Area C is separated and sampled for waste management purposes. Sample results have indicated that the waste be managed as TSCA waste.

Slurry passing through the screening/desanding equipment at Area C is pumped to Area D for dewatering using filter presses. Sampling and analysis of filter cake is established in the *Field Sampling Plan* (Jacobs 2005b). The filter cake generated is characterized as a TSCA PCB remediation waste and has been disposed of at a TSCA permitted facility. Regulatory requirements associated with filtrate from dewatering operations at Area D are discussed in Subsection 3.6.

An extensive and detailed discussion of the regulatory requirements associated with collection, containment, and transportation of these four remediation waste streams is presented in the *TTSP* (Jacobs 2005f). The generator and transporters must comply with TSCA Notification requirements in accordance with 40 CFR 761.205.

3.8 AIR MONITORING AND AIR POLLUTION CONTROL

Dredging activities have the potential to release PCBs, VOCs, and H_2S from the contaminated sediments at New Bedford Harbor. Sediment processing activities may also be generation points for emissions, at both Area C and Area D. Emissions from the desanding operations at Area C are captured by a ventilation system above the shakers, and then vented through a carbon treatment system and to the outside through an emission stack. Emissions from the agitated mix tank operations in the dewatering building at Area D are captured from each tank, pass through an activated carbon bed, and vented within the dewatering building. At the time of this writing, plans are to extend the air emission stack outside of the building so that the post-carbon emissions will be discharged away from the work areas to the ambient air. Emissions will be monitored by a regular sampling program, the details of which will be outlined in a future *Field Sampling Plan.* Air discharge permits are not required for either the emission source at the desanding building or the dewatering building, pursuant to the permitting exemption under CERCLA.

In addition to air chemical contaminant emissions, fugitive dust also may be generated by activities such as outdoor storage of sand and oversized material and vehicle traffic on unpaved roads.

3.8.1 Dust and Odor

Regulation 310 CMR 7.09 requires that construction or demolition activities do not contribute to a condition of air pollution, which includes generation of excessive odors or fugitive dust. During dredging operations and sediment processing activities, engineering controls will be employed to minimize the generation of dust and odors. Throughout the

dredging activities, odor will be monitored. Should any unidentified and/or recurrent odors occur, the source and possible controls will be reviewed to develop appropriate corrective measures.

Control of dust is an important consideration whenever bulk material handling or disturbances occur with the potential to generate particulates. This issue is even more critical for remedial activities at the New Bedford Harbor Superfund Site due to the urban setting of the Site and the characteristics of the materials being handled. Due to the nature of the activities on the barges and in the barge work zones, dust is not considered to be an issue on harbor waters, and no dust control measures are deemed as warranted for dredging operations. However, work activities requiring special attention to dust control include management of waste stockpiles, movement of various bulk waste materials in loaders and excavators, and housekeeping measures outside and within structures at Areas C and D.

3.8.2 Noise

Regulation 310 CMR 7.10 requires that no person controlling a source of sound willfully allow unnecessary noise generation. All necessary precautions will be taken to reduce the noise generated during construction, dredging, and sediment processing operations. Massachusetts MassDEP DAQC Policy 90-001 establishes a guideline where the source of new noise should not emit more than 10 decibels above background level. The noise level from site operations will be minimized and will follow the suggested noise limit to the extent practicable. If warranted, sound levels will be monitored near residential areas that could potentially be affected by noise associated with project activities. The Jacobs team will comply with all federal, state, and local regulations pertaining to the control of noise emanating from a construction site.

3.8.3 Toxic Air Pollutants

Massachusetts has established air quality guidelines for toxic air pollutants that were developed to be protective of public health. These guidelines provide short-term and

long-term exposure point concentrations for air contaminants (recommended Threshold Effect Level [TELs] and Ambient Air Level [AALs]). The TEL for PCBs is 0.003 micrograms per cubic meter ($\mu g/m^3$) for a 24-hour ceiling and the AAL for PCBs is 0.0005 $\mu g/m^3$ for an annual average. The MassDEP acknowledges that both the TEL and AAL are exceeded at the Site under existing conditions; therefore, the long-term risk of exposure to human health from PCB emissions should consider the TEL and AAL for PCBs. Compliance with these guidelines will be monitored through the development and implementation of an ambient air management program.

The development of cumulative exposure budgets is presented in the draft document *Development of PCB Air Action Levels for the Protection of the Public* (FWENC 2001). The cumulative exposure budgets are integrated into an ambient air management program for the remediation operations at New Bedford Harbor. The main elements of this program involve ambient air monitoring for PCBs, air dispersion modeling, and tracking of ambient concentrations against cumulative exposure budgets.

3.8.4 NESHAPS

Regulation 40 CFR 63 provides source specific National Emissions Standards for Hazardous Air Pollutants (NESHAPS). The remediation activities at the New Bedford Site are exempt from this regulation since they are being carried out under the authority of CERCLA, as a remedial action [40 CFR Part 63.7881(b)(2)].

3.9 ON-SITE DISPOSAL

With the exception of the discharge of treated wastewater from dewatering filtrate and decontamination fluids as discussed in Subsection 3.6, there will be no further on-site disposal of wastes. The Jacobs team will continue to maintain existing CDF, as described in Section 3.3.

The Jacobs team will enforce proper use of refuse containers to ensure that rodents and other pests are not harbored or attracted. At each location where workers are assigned an

entire shift, Jacobs will designate a specific lunch area and associated refuse container(s) to prevent random disposal of garbage and trash. No food, garbage, or trash associated with food or office activities will be disposed of in dumpsters or other containers being utilized for disposal of remediation waste. Refuse containers containing food wastes will be emptied no less than weekly to maintain Site sanitation. Any exterior refuse containers or dumpsters for food or office wastes must be kept tightly covered at all times except when adding or removing trash. No wastes will be burned, buried, or left on-site.

3.10 OFF-SITE TRANSPORTATION AND DISPOSAL

As specified in the ROD, wastes that are determined to be RCRA hazardous will be disposed off-site at a permitted RCRA disposal facility. Similarly, the *Explanation of Significant Differences (ESD)* (EPA 2001) provides for the off-site disposal of dredged sediments. Since off-site disposal is not considered an "on-site" activity under CERCLA, off-site disposal of wastes is subject to the administrative and substantive requirements of the federal and state hazardous and solid waste regulations. A discussion of the regulatory requirements and proposed activities associated with off-site transportation and disposal of remediation wastes is provided in the *TTSP* (Jacobs 2005f).

Hazardous wastes generated on site (e.g., waste oil, laboratory wastes, etc.) are to be managed in accordance with the Massachusetts Hazardous Waste Regulations, 310 CMR 30.000, including applicable storage, labeling, and packaging requirements.

3.11 PROJECT DEMOBILIZATION

Remedial equipment and structures will remain on-site beyond the duration of the Scope of Work activities that are the focus of this RCP; as such, regulatory requirements and issues associated with demobilization, dismantling, and demolition of remedial equipment and improvements are not presented herein.

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4.0 RELEASE NOTIFICATION

This section provides information for notification of external agencies in the case of release of hazardous substance or oil to the environment. This New Bedford response action is being conducted under the federal CERCLA in accordance with a signed ROD for the action. Pursuant to 310 CMR 40.110 and 40.111, response actions conducted under the federal CERCLA are considered "adequately regulated" by MassDEP for the purposes of compliance with the 310 CMR 40.000 MCP and, therefore, not subject to MCP requirements. MassDEP has noted, however, that any new release of oil or hazardous materials that occurs at the federal CERCLA site is subject to the notification requirements under 310 CMR 40.0300 and must be reported to the MassDEP, since the "adequately regulated" provisions only apply to remedial action decisions (*Adequately Regulated Fact Sheet 2: Requirements for Adequately Regulated Federal Superfund Sites*, May 2004).

4.1 RELEASE NOTIFICATION REQUIREMENTS

Under 310 CMR 40.0006, a release is defined as "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." The environment is defined as "all surface water, groundwater, land surface or subsurface strata and ambient air."

Upon identification of a release, the Jacobs project team will notify the Jacobs Site Manager, who will, in turn, notify the Jacobs Project Manager and the Jacobs Project Engineer. After this initial tier of notification, the Jacobs Site Manager will notify the NAE Project Engineer simultaneously to the Jacobs Project Manager notifying the NAE Project Manager. Any required notification to the appropriate agencies, as indicated below, will be made by NAE.

Federal Notification Requirements

Pursuant to 40 CFR 300.125, a release to the environment of oil or of a hazardous substance in amounts equal to or exceeding its reportable quantity (RQ) (as listed in 40 CFR 302.4) in a 24-hour period, is to be reported to the National Response Center (NRC) located at the United States Coast Guard (USCG) Headquarters. Details of notification requirements are given at 40 CFR 300.300 for oil and 300.405 for hazardous substances. At New Bedford, the fuels from motorized equipment operation or refueling may potentially be released. Hazardous substances that may potentially be released into the environment are PCBs, ferric sulfate, and sodium hydroxide.

If diesel fuel or gasoline is released and produces a sheen, the NRC must be notified. If a spill of PCBs, ferric sulfate, or sodium hydroxide directly contaminates surface water, sewers, or drinking water supplies, grazing lands, or vegetable gardens, or exceeds their respective RQs of 1, 1,000, and 1,000 pounds by weight, the NRC must be notified. The EPA Regional PCB Coordinator must also be notified if PCBs are released in excess of the RQ (40 CFR 761.125(a)(1)).

Details on reporting procedures are included in the *Emergency Response and Contingency Plan* (Jacobs 2007a).

Massachusetts Notification Requirements

Notification requirements under the MassDEP MCP delineated in 310 CMR 40.0300 are categorized as "within two hours" and "within 72 hours" requirements. A release or threat of a release of a hazardous material, as defined under 310 CMR 40.0006, in amounts equal to or exceeding the MassDEP RQ listed in 310 CMR 40.1600 is to be reported to the MassDEP. The MCP RQ for PCB spills is 1 pound by weight. The MCP RQ for both ferric sulfate and sodium hydroxide is 50 pounds by weight. The MCP RQ for both diesel fuel and gasoline is 10 gallons.

If there is a release of oil or fuel to land in an amount exceeding the RQ, notification of MassDEP is required. If the release is to surface water, the presence of a sheen is sufficient to trigger notification requirements.

Best Practices for Releases

The following section provides Best Practices for handling releases and notifications under the following scenarios:

1. Release to Land

a. Fuel or Oil—Contain the spill, dig up the soil, and containerize it. Soil is to be disposed of or recycled offsite. If the mass spilled is greater than the Massachusetts RQ, notification of release must be made to MassDEP. If the mass spilled is greater than the federal RQ, notification must be made to the NRC.

b. Sediment Slurry Containing PCBs—Dig up the soil and containerize it. Soil is to be disposed of or recycled offsite. If the mass spilled is greater than the RQ for PCBs, notification must be made to MassDEP and the NRC. The EPA Regional TSCA PCB Coordinator must also be notified depending on the circumstances of the spill (see conditions listed under "Federal," above).

2. Release to Water

a. Fuel or Oil—If a sheen appears from the release and is from normal operations, such as dredging or starting outboard motors, do not report. If the sheen is from another source, such as process chemicals or refueling of equipment, notifications of the release are to be made to MassDEP, regardless of quantity.

b. Sediment Slurry Containing PCB—If the release is from normal operations such as dredging upstream of Area C, do not report. If the release occurs between Areas C

and D, and exceeds the RQ for PCBs, ferric sulfate or sodium hydroxide, notification is to be made to the NRC.

4.2 WASTEWATER DISCHARGE NOTIFICATION REQUIREMENTS

Any discharges of treated effluent to the New Bedford Harbor with averaged monthly concentrations in excess of the federal Ambient Water Quality Criteria for lead (8.5 µg/L), cadmium (9.3 µg/L), or chromium (50 µg/L), or above the phased Total Maximum Daily Load limits for PCBs (0.065 µg/L) or copper (5.6 µg/L), shall require immediate notification to the MassDEP Project Manager.

5.0 TRAINING/CERTIFICATION REQUIREMENTS

5.1 DEPARTMENT OF TRANSPORTATION TRAINING

All employees involved in performing a DOT function for off-site transportation of substances classified as hazardous materials must complete an initial DOT hazardous materials training course. If individuals will be involved in shipping of hazardous material via air, such as for overnight shipment of regulated analytical samples, the refresher training must be conducted every two years in accordance with International Air Transportation Association regulations.

5.2 OCCUPATIONAL SAFETY AND HEALTH ACT TRAINING

All project personnel working on-site must possess current certification indicating Hazardous Waste Operations and Emergency Response training in accordance with 29 CFR 1910.

5.3 WASTEWATER TREATMENT PLANT OPERATOR QUALIFICATIONS

Personnel operating the wastewater treatment facilities are not required to obtain a current Industrial Wastewater Treatment Operators License from the Massachusetts Board of Registration of Operators of Wastewater Treatment facilities because the plants are not considered to be "treatment works." The Jacobs team will utilize qualified operators that have the education and skill necessary to operate and maintain the treatment facility in accordance with the substantive requirements of Massachusetts and federal regulations that are identified as ARARs for this project, as listed in the appendix.

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6.0 INSPECTIONS BY REGULATORY AGENCIES

The Jacobs Site Manager, the Jacobs Project Engineer, Site Safety & Health Officer, and Project Manager must be immediately notified by Jacobs team site personnel regarding any regulatory compliance inspections by federal, state, or local regulatory agency enforcement personnel as soon as the inspection becomes known. The Jacobs Project Manager will notify the Jacobs Project Engineer and the NAE Project Manager and NAE Project Engineer. This excludes routine inspections performed by NAE, project EPA, and MassDEP project personnel.

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7.0 REGULATORY COMPLIANCE PLAN UPDATES

The scope covered by this RCP is as comprehensive as possible. This RCP will be amended whenever changes or additions occur to the work scope that affects compliance issues.

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FIGURE

Figure 1-1, Remedial Systems Locations

CBI

APPENDIX

Applicable or Relevant and Appropriate Requirements (ARARs)

Table 8 -- New Bedford Harbor Upper and Lower Harbor ROD -- Chemical Specific ARARS

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Federal				
Cancer Slope Factors (CSFs)		To Be Considered	These are guidance values used to evaluate the potential carcinogenic hazard caused by exposure to contaminants.	Dredging and containment of PCB contaminated sediments in CDFs will minimize exposure to potential receptors
Reference Doses (RfDs)		To Be Considered	These are guidance values used to evaluate the potential non-carcinogenic hazard caused by exposure to contaminants.	Dredging and containment of PCB contaminated sediments in CDFs will minimize exposure to potential receptors
PCBs: Cancer Dose -- Response Assessment and Application to Environmental Mixtures	EPA/600/P-96/001F, September, 1996	To Be Considered	Guidance as to Agency's reassessment of the carcinogenicity of PCBs. It includes revised slope factors for PCBs based on the pathway of exposure	Dredging and containment of PCB contaminated sediments in CDFs will minimize exposure to potential receptors
Federal Food, Drug and Cosmetic Act	21 USC 331, 342, 346, 21 CFR 109.30	Relevant and Appropriate	Prohibits the introduction of adulterated food into interstate commerce. Fish or shellfish containing greater than 2 ppm PCB concentration in tissue is considered adulterated. State fishing ban incorporates FDA level	State fishing ban will continue, along with other institutional controls, to minimize consumption of local seafood. FDA level is waived pursuant to CERCLA Section 121(d)(4)(B)
Clean Water Act (CWA), Water Quality Criteria	33 USC 1313, 1314	Relevant and Appropriate	Federal surface water quality standards are incorporated into Massachusetts Surface Water Quality Standards	
Massachusetts				
Surface Water Quality Standards	21 MGL 27, 314 CMR 4.04(1),(2); 4.05(4)(a-b),(5)	Relevant and Appropriate	MADEP surface water quality standards incorporate the federal AWQC as standards for surface waters of the state. Standards establish acute and chronic effects on aquatic life for contaminants including PCBs, cadmium, chromium, copper, and lead.	AWQC are used as a measure of long-term performance and effectiveness of the remedy

Table 8 – New Bedford Harbor Upper and Lower Harbor ROD -- Location Specific ARARs

Requirement	Citation	Status	Requirement Synopsis	Actions to be Taken to Attain ARARs
Federal				
Floodplain Management - Executive Order 11988	40 CFR Part 6, Appendix A	Applicable	Federal agencies are required to reduce the risk of flood loss, minimize impact of floods, and restore and preserve the natural and beneficial values of floodplains.	The remedy will occur within the 100-year coastal floodplain as there is no practical acceptable alternative location. The CDFs will be constructed to minimize potential harm to the floodplain and will be built in accordance with flood protection measures
Wetland Protection - Executive Order 11990	40 CFR Part 6, Appendix A	Applicable	Federal agencies are required to avoid adversely impacting wetlands whenever possible, minimize wetland destruction and preserve the value of wetlands.	This is the best practical alternative for remediating the Harbor. The Agency will minimize the destruction, loss and degradation of wetlands as much as possible given the extent and location of contaminated sediment. Where ever possible, higher target cleanup levels were set in wetlands to minimize destruction. Replanting of dredged wetlands will occur.
Fish and Wildlife Coordination Act	16 USC Part 661 et seq.; 40 CFR 6 302(g)	Applicable	Requires consultation with appropriate agencies to protect fish and wildlife when federal actions may alter waterways. Must develop measures to prevent and mitigate potential loss to the maximum extent possible.	Appropriate agencies will be consulted prior to implementation to find ways to minimize adverse effects to fish and wildlife from harbor dredging and from construction and maintenance of CDFs
Endangered Species Act	16 USC Part 1531 et seq.; 40 CFR 6 302(h)	Applicable	Requires consultation with appropriate agencies if a threatened or listed species or their habitat may be affected by a federal action.	EPA will consult with appropriate agencies to consider mitigation measures for remedial activities affecting the identified feeding grounds for roseate tern.
Preservation of Historical and Archeological Data Act of 1974	16 USC 469 et seq.	Applicable	Requires recovering and preserving significant historical or archeological data when such data is threatened by a federal action or federally licensed action which alters any terrain where such data is located.	An assessment of the Harbor for potential locations of historical or archeological data will be conducted. Located objects will be recovered in accordance with the substantive requirements.
Coastal Zone Management Act	16 USC Parts 1451 et seq.	Applicable	Requires that any actions must be conducted in a manner consistent with state approved management programs.	The entire site is located in a coastal zone management area. The remedy is consistent with the state coastal zone management program to the maximum extent possible.
Massachusetts				
Wetlands Protection Act	131 MGL 40; 310 CMR 10	Applicable	Standards regulate dredging, filling, altering, or polluting of coastal and inland wetland resource areas. Protected resource areas within and adjacent to the site include: Land Subject to Coastal Storm Flowage 10.02(1)(d); Coastal Wetlands 10.24(7)(b), (c)(6); Land Under Ocean 10.25(5)(6); Designated Port Area 10.26(3)(4); Coastal Beaches (including tidal flats) 10.27(6); Coastal Banks 10.30(6-7); Salt Marshes 10.32(5); Land Containing Shellfish 10.34(5)(7);	Best available measures will be used to minimize adverse effects on identified resource areas and associated 100 foot buffer zones during design and implementation of remedy. Dredged salt marshes will be replanted. DMF will be consulted for activities affecting fish and shellfish habitat..
Wetlands Protection Act (continued)			Banks..Land Under...Fish Runs 10.35 (3-4); and Riverfront Area 10.58(4)(a),(c)(1and3),(d)(2),(d)(5)(a-b and f-g).	
Coastal Zone Management	301 CMR 21.00	Applicable	Requires that any actions must be conducted in a manner consistent with state approved management programs.	The entire site is located in a coastal zone management area. Actions taken will be consistent with substantive portions of identified policies of CZM.

Table 8 – New Bedford Harbor Upper and Lower Harbor ROD Location Specific ARARs

Requirement	Citation	Status	Requirement Synopsis	Actions to be Taken to Attain ARARs
Coastal Zone Management Policies	MCZM	To Be Considered	Statements of the state environmental policy for coastal zone areas which are implemented through identified ARARs, particularly the Wetlands Protection Act and the Waterways Law. Policies to be considered are Habitat 1; Water Quality 1; Coastal Hazard 2,3; Ports1, 2,3; Ports Management Principle 1; Protected Areas 3; Public Access1; Public Access Management Principle 2, 4; and Growth Management Principle 1.	These policies will be considered throughout construction, dredging and operation and maintenance of the remedy. Compliance with the identified substantive portions of the State ARARs will meet the intent of these policies
Administration of Waterways Licenses Law	91 MGL 1.00 et seq.; 301 CMR 9.00	Applicable	Criteria for work within flowed and filled tidelands. Focus on long term viability of marine uses and protecting public rights in tidelands. Applicable provisions are Restrictions on Fill and Structures 9.32(1)(a)(2,3)(b)(3,4); Preserving Water-Related Public Rights 9.35(1),(2)(a)(1 and 3 (a and b); Protecting Water-Dependent Uses 9.36 (2)(3)(4)(5)(a)(1,2)(5)(b); Engineering and Construction Standards 9.37(1)(c), (3)(a),(b)(4); and Dredging and Dredged Material Disposal 9.40(2),(3)(c)	Temporary unavoidable impacts to public access rights to water and to water dependent users will occur. Alternate access will be available. CDFs will be designed to accommodate future uses, subject to institutional controls, such as parks, sports fields, and in designated port areas, marinas
Prohibition Against Certain Fishing in New Bedford Harbor	111 MGL 5 and 6; 94 MGL 186 and 192; 30A MGL 2; 105 CMR 260.005	Applicable	Prohibits taking or selling of contaminated lobsters and certain fish in designated areas of New Bedford Harbor.	State fishing ban in Areas I, II, and III will be incorporated into the remedy as an existing institutional control for protection of human health. State remains as enforcement authority.

Table 8 -- New Bedford Harbor Upper and Lower Harbor ROD -- Action Specific ARARs

Medium/Authority	Citation	Status	Requirement Synopsis	Actions to be Taken to Attain ARARs
Federal				
Toxic Substances Control Act (TSCA), PCB Disposal Requirements	15 USC 2601-2692; 40 CFR 761.50(a)(3); (b)(3)(i)(A)	Applicable	General PCB Disposal requirements for all actions and provides jurisdiction for EPA cleanup.	Discharges from water treatment plants will meet PCB AWQC through phased TMDL approach. The Regional Administrator finds the site poses an unreasonable risk to health and the environment and requires remediation.
TSCA PCB Remediation Waste	40 CFR 761 61(c)	Applicable	Provides for a risk-based disposal method which will not pose an unreasonable risk of injury to human health or the environment.	Disposal of the contaminated dredged sediments in CDFs will not pose unreasonable risk and is approved by the Regional Administrator through issuance of the ROD
TSCA Chemical Waste Landfill Standards	40 CFR 761 75 See synopsis for specific citations.	Applicable	Standards for the construction, operation, and monitoring of facilities used to dispose of PCB's, unless a waiver is granted under Sec. 761.75(c)(4). Appropriate sections are 761.75(b)(1) soils; (b)(2) liner; (b)(4)(i) flood protection; (b)(5) topography ; (b)(6) monitoring; (b)(8)(i) operations; (b)(9) supporting facilities; and (c)(4) waivers.	CDFs will be constructed, operated and maintained to satisfy the substantive requirements. TSCA waivers required for specific requirements regarding soil (soil underlying CDFs will meet permeability standard of 10E-07 cm/sec); synthetic bottom liner (CDFs will have synthetic side liner); hydrogeologic conditions; and leachate collection. Regional Administrator finds CDFs will not present unreasonable risk of injury to health or the environment and approves of remedy without these specific features.
TSCA Decontamination	40 CFR 761. 79	Applicable	Sets decontamination standards for removal of PCBs from water, organic liquids, non-porous surfaces, concrete and nonporous surfaces covered with a porous surface. Allows for alternative methods of decontamination.	Equipment and personal protective gear will be decontaminated in accordance with these substantive requirements.
TSCA PCB Spill Cleanup Policy	40 CFR 761. 120 - .135	To Be Considered	Establishes criteria to determine adequacy of the cleanup of spills (occurring after 5/4/87) from the release of materials with > 50 ppm PCBs.	Although this policy is directed at electrical equipment-type spills, it will be considered to address any PCB leakage or spillage from the CDF.

Table 8 -- New Bedford Harbor Upper and Lower Harbor ROD -- Action Specific ARARs

Medium/Authority	Citation	Status	Requirement Synopsis	Actions to be taken to Attain ARARs
Clean Water Act (CWA), Section 402, National Pollutant Discharge Elimination System (NPDES)	33 USC 1342; 40 CFR 122-125, 131	Applicable	These standards govern discharge of water into surface waters. Due to the degraded nature of New Bedford Harbor waters, discharges of Cu and PCBs into the waterway must meet ambient water quality criteria (AWQC) at the discharge point.	Discharge from the water treatment plants associated with the remedial dredging will meet AWQC for Cd, Cr and Pb. Copper and PCBs will meet AWQC through a phased Total Maximum Daily Load (TMDL) approach.
CWA, Section 402, NPDES, Prohibitions	40 CFR 122.4(i)	Applicable	Prohibits new discharges into waters that do not meet applicable water quality criteria (AWQC) unless certain conditions are met.	Meeting this requirement will result in greater risk to human health and the environment since compliance would prevent cleanup of the Site until the Harbor waters reach water quality standards or until other conditions in the standard are met, neither of which can be accomplished in a reasonable time frame. Regulation is waived pursuant to CERCLA Section 121(d)(4)(B).
Total Maximum Daily Load (TMDL) Program Supplemental Guidance: The TMDL Concept	USEPA Draft 12/12/94	To Be Considered	Guidance clarifies TMDL concept's scope and flexibility	TMDL guidance considered in phased TMDL approach to meeting AWQC for copper and PCB discharges from site treatment plants
CWA, Section 404, Dredge and Fill Activities	40 CFR 230	Applicable	Control discharges of dredged or fill material in order to restore and maintain the chemical, physical and biological integrity of waters of the United States.	EPA finds that the remedy is the least damaging alternative to remediating the Harbor. Dredging of sediments and filling CDFs will be implemented so as to minimize to the maximum extent possible any adverse environmental impacts through engineering controls such as type of dredge used, rate of dredging, varying target cleanup levels in wetlands, and salt marsh revegetation.
Rivers and Harbors Act	33 USC 401-426m	Applicable	Requires coordination and approval of U.S. Army Corps of Engineers for dredging and for construction and future use of CDFs in navigable waters of the United States.	All dredging activities and remedial design, construction and future use decisons concerning the CDFs will comply with substantive requirements of this chapter that apply to the remedy. Remedy will be coordinated with and carried out with the approval and participation of the USACE.
Clean Air Act (CAA), National Emissions Standards for Hazardous Air Pollutants (NESHAPS)	42 USC 7401 et seq.; 40 CFR Part 63	Relevant and Appropriate	NESHAPS are a set of air emissions standards for specific chemicals, including PCBs, from specific production activities.	Monitoring of air emission from the CDFs during dredging and during temporary and final closure will be performed to assess compliance with these standards. Operation and maintenance activities will be carried out in a manner which will minimize potential air releases.

Table 8 -- New Bedford Harbor Upper and Lower Harbor ROD -- Action Specific ARARs

Medium/Authority	Citation	Status	Requirement Synopsis	Actions to be Taken to Attain ARARs
Guidance on Remedial Actions for Superfund Sites with PCB Contamination	OSWER Dir. 9355.4-01 (August 1990)	To Be Considered	Describes the recommended approach for evaluating and remediating CERCLA sites with PCB contamination.	This guidance was considered when setting remedial objectives and target cleanup levels and will be considered during remedial design and when implmenting long term management controls of the CDFs.
Massachusetts				
Hazardous Waste Management Identification and Listing	21C MGL 4 and 6; 310 CMR 30.100	Applicable	Establishes standards for identifying and listing hazardous waste.	Testing as appropriate will assess whether hazardous wastes are present in discharges, process wastes or in material generated from cable or CSO relocation projects.
Hazardous Waste Management - Requirements for Generators of Hazardous Waste	21C MGL 4 and 6; 310 CMR 30.300	Applicable	Establishes standards for various classes of generators	Any hazardous waste generated from the cable and CSO relocation projects or hazardous process wastes will be managed in accordance with the substantive requirements of these regulations and sent offsite to a hazardous waste disposal facility
Hazardous Waste Management - Management Standards for all Hazardous Waste Facilities	21C MGL 4 and 6, 310 CMR 30 et. seq.	Applicable	Establishes standards for treatment, storage and disposal of hazardous waste. Sec. 30.501(3)(a) exempts facilities which treat, dispose or store hazardous waste containing 50 ppm or more of PCBs if they are adequately regulated under TSCA, 40 CFR 761.	Any hazardous waste generated from the cable and CSO relocation projects or hazardous process wastes will be managed in accordance with the substantive requirements of this section.
Supplemental Requirements for Hazardous Waste Management Facilities	21 MGL 27(12), 34 and 43; 314 CMR 8.03	Relevant and Appropriate	This regulation outlines the additional requirements that must be satisfied in order for a RCRA facility to comply with the NPDES regulation.	The water treatment facilities will meet these regulations through a monitoring program and engineering controls if necessary.
Solid Waste Management	21A MGL 2 and 8; 310 CMR 19.110-118; 19.130; 19.132-133; 19.143.	Relevant and Appropriate	Establishes rules and requirements for solid waste facilities; including cover systems; surface water and groundwater protection; monitoring and post-closure.	Disposal of sediments will meet the substantive requirements of these provisions if more stringent than TSCA regulations.
Surface Water Discharge	21 MGL 23(12) and 34; 314 CMR 3.10(3)(4-6); (9)(a);(19)(3-6), (10),(12)(a-b); (13)	Applicable	This section outlines the requirements for obtaining a National Pollutant Discharge Elimination System (NPDES) permit in Massachusetts. The waters of New Bedford Harbor adjacent to the site are Classified as SB.	Discharge from waste treatment facilities will meet stringent effluent limitations. Discharges will be monitored in accordance with Site monitoring plans. Plants shall be properly operated and maintained; discharge will be reduced or halted if plants fail to function properly while corrective action undertaken.

Table 8 -- New Bedford Harbor Upper and Lower Harbor ROD -- Action Specific ARARs

Medium/Authority	Citation	Status	Requirement Synopsis	Actions to be Taken to Attain ARARs
Surface Water Quality Standards	27 MGL 27; 314 CMR 4. 03(1)(3)(c); 4. 04 (1)(2)(4)(6) ; 4.05(4)(a-b), (5)	Applicable	MADEP surface water quality standards incorporate the federal AWQC as standards for surface waters of the state. Standards establish acute and chronic effects on aquatic life for contaminants including PCBs, cadmium, chromium, copper, and lead.	Effluent discharged to the River from the water treatment plants shall meet ambient water quality criteria for cadmium, chromium and lead. Copper and PCB discharges will be at or below background pursuant to a phased Total Maximum Daily Load (TMDL) approach.
Rules for the Prevention and Control of Oil Pollution in the Waters of the Commonwealth	21 MGL 26-53; 314 CMR 15.03 (1),(3-5) ; 15.06(1-5)	Applicable	Regulates the discharge of oil or sewage, industrial waste or other material containing oil into waters of the Commonwealth. PCBs contain oil, some of which floats on surface water.	The remedy will comply with the substantive requirements of the provisions
Operation and Maintenance and Pretreatment Standards for Wastewater Treatment Works and Indirect Dischargers	21 MGL 27(12 - 34; 314 CMR 12. 03(8); 12. 04(2), (3),(5), (8-12); 12. 05(1),(6),(12); 12.06(1-3)	Relevant and Appropriate	Establishes operation and maintenance standards for treatment works.	Water treatment facilities, although not "treatment works", will not allow waste to bypass system, will have an alarm system in place, and will be maintained properly and safely with adequate tools, equipment, parts, personnel, etc. Sampling and analysis will be conducted according to the site plan
Certification for Dredging, Dredged Material Disposal and Filling in Waters	21 MGL 26-53; 314 CMR 9.06(1-2)	Applicable	Establishes procedures and criteria for the administration of Section 401 of the federal Clean Water Act for the discharge of dredged or fill material in waters of the United States within the Commonwealth.	The remedy represents the best practicable alternative for remediating the Harbor. Any adverse impacts will be minimized; replanting will occur where necessary.
Massachusetts Water Quality Standards Implementation Policy of Toxic Pollutants in Surface Waters (2/23/90)		To Be Considered	Recommends surface water quality standards for specified contaminants and implementation measures to achieve standards	This implementation policy and appropriate standards will be considered when evaluating impacts to surface water quality from the remedy.
Ambient Air Quality Standards	111 MGL 142D; 310 CMR 6.04(2)	Applicable	Establishes ambient air level for contaminants and particulates.	Emissions during construction and operation of CDFs will meet the particulate standard. Dust suppression will be used to reduce particulate emissions. Air monitoring is part of the site long-term monitoring plan.

Table 8 -- New Bedford Harbor Upper and Lower Harbor ROD -- Action Specific ARARs

Medium/Authority	Citation	Status	Requirement Synopsis	Actions to be Taken to Attain ARARs
Air Pollution Control	111 MGL 142A-J, 310 CMR 7.09(1-4); 7.10(1-2)	Applicable	Standards for, among other things, dust, odor and noise at construction sites. Pollution abatement controls may be required.	Dredging and CDF construction will be implmented so as to avoid air pollution. Engineering controls will be used as necessary.
MADEP - Recommended Threshold Effect Exposure Limits (TELs) and Allowable Ambient Limits (AALs)		To Be Considered	Establishes exposure concentrations for air contaminants developed and recommended by the Office of Research and Standards to protect public health	Evaluation of air emissions will consider the TELs and AALs.
Allowable Sound Emissions	DAQC policy 90-001; 2/1/90	To Be Considered	Establishes guideline where source of new noise should not emit more than 10 decibels above the existing (background) level.	Site operations noise level will be minimized and will follow the suggested noise limit to the extent practicable